2007

In the Claims.

Please amend claim 1 as indicated. Please add new claims 95 - 107. All currently pending claims are reproduced herein.

- 1. (Currently amended) An ionically cross-linked gel comprising:
 - a polyacid (PA);
 - a polyalkylene oxide (PO); and
 - a monoatomic multivalent cation.
- 2. (Original) The gel of claim 1, wherein said polyacid is selected from the group consisting of a carboxypolysaccharide, polyacrylic acid, polyamino acid, polylactic acid, polyglycolic acid, polymethacrylic acid, polyterephthalic acid, polyhydroxybutyric acid, polyphosphoric acid, polystyrenesulfonic acid, and copolymers of said polyacids.
- 3. (Original) The gel of claim 1, wherein the polyacid is a carboxypolysaccharide selected from the group consisting of carboxymethyl cellulose (CMC), carboxyethyl cellulose, chitin, carboxymethyl chitin, hyaluronic acid, alginate, propylene glycol alginate, pectin, carboxymethyl dextran, carboxymethyl chitosan, heparin, heparin sulfate, chondroitin sulfate and polyuronic acids including polymannuronic acid, polyglucuronic acid and polyguluronic acid.
- 4. (Original) The gel of claim 1, wherein the polyacid is carboxymethylcellulose.
- 5. (Original) The gel of claim 1, wherein the polyacid is carboxymethylcellulose having a molecular weight in the range of about 10 kd to about 10,000 kd and a degree of substitution in the range of greater than about 0 to about 3.
- 6. (Original) The gel of claim 1, wherein said polyalkylene oxide is selected from the group consisting of polypropylene oxide, polyethylene glycol, polyethylene oxide, and PEO/PPO block copolymers.

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- 7. (Original) The gel of claim 1, wherein said polyalkylene oxide is polyethylene oxide or polyethylene glycol having a molecular weight in the range of about 200 d to about 8000 kd.
- 8. (Original) The gel of claim 1, wherein said polyalkylene oxide is polyethylene glycol having a molecular weight in the range of about 200 d to about 5 kd.
- 9. (Original) The gel of claim 1, wherein said PA is in the range of about 10 % to about 99 % by weight, of the total solids content.
- 10. (Original) The gel of claim 1, wherein the PA is in the range of about 50 % by weight to about 99 % by weight, of the total solids content.
- 11. (Original) The gel of claim 1, wherein the PA is in the range of about 90 % by weight to about 99 % by weight, of the total solids content.
- 12. (Original) The gel of claim 1, wherein the PO is in the range of about 1 % by weight to about 90 % by weight, of the total solids content.
- 13. (Original) The gel of claim 1, wherein the PO is in the range of about 1 % by weight to about 10 % by weight, of the total solids content.
- 14. (Original) The gel of claim 1, wherein the PO is about 2.5 % by weight, of the total solids content.
- 15. (Original) The gel of claim 1, wherein the total solids content of the gel is in the range of about 1 % to about 10 %.
- 16. (Original) The gel of claim 1, wherein said cation is a trivalent cation.

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- 17. (Original) The gel of claim 1, wherein said cation is selected from the group consisting of Fe⁺³, Al⁺³, and Cr⁺³.
- 18. (Original) The gel of claim 1, wherein said cation is a divalent cation.
- 19. (Original) The gel of claim 1, wherein said cation is a divalent cation selected from the group consisting of Ca⁺², Zn⁺², Mg⁺² and Mn⁺².
- 20. (Original) The gel of claim 1, wherein said cation is accompanied by an inorganic anion.
- 21. (Original) The gel of claim 1, wherein said cation is accompanied by an inorganic anion selected from the group consisting of Cl, PO₄², HPO₃, CO₃², HCO₃, SO₄² and borates.
- 22. (Original) The gel of claim 1, wherein said cation is accompanied by an organic anion.
- 23. (Original) The gel of claim 1, wherein said cation is accompanied by an organic anion selected from the group consisting of citrate, oxalate and acetate.
- 24. (Original) The gel of claim 1, wherein the pH of the gel is in the range of about 2.0 to about 7.5.
- 25. (Original) The gel of claim 1, wherein the pH of the gel is in the range of about 2.5 to about 6.0.
- 26. (Original) The gel of claim 1, further comprising a drug.
- 27. (Original) The gel of claim 1, further comprising a drug selected from the group consisting of antithrombogenic drugs, anti-inflammatory drugs, hormones, chemotactic factors, analgesics, growth factors, cytokines, osteogenic factors and anesthetics.

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- 28. (Original) The gel of claim 1, further comprising a drug selected from the group consisting of heparin, tissue plasminogen activator, aspirin, ibuprofen, ketoprofen, proteins and peptides containing an RGD motif, and non-steroidal anti-inflammatory drugs.
- 29. (Original) The gel of claim 1 having a viscosity below about 500,000 centipoise.
- 30 94. Previously withdrawn.

Please add the following new craims

- 95. (New) The gel of claim 1, wherein the polyacid is about 90% by weight of the total solids content and the polyalkylene oxide is about 10% by weight of the total solids content.
- 96. (New) The gel of claim 1, wherein the polyacid is about 97.5% by weight of the total solids content and the polyalkylene oxide is about 2.5% by weight of the total solids content.
- 97. (New) The gel of claim 95, wherein said cation is Ca²⁺ and said gel further comprises Cl⁻.
- 98. (New) The gel of claim 96, wherein said cation is Ca²⁺ and said gel further comprises Cl⁻.
- 99. (New) The gel of claim 95, wherein the total solids content of said gel is about 4 gm/100 ml.
- 100. (New) The gel of claim 96, wherein the total solids content of said gel is about 4 gm/100 ml.
- 101. (New) The gel of claim 95, wherein
 said polyacid is carboxymethylcellulose having
 an average molecular weight of about 700,000 Daltons; and
 a degree of substitution of between about 0.81 and about 0.83;
 said polyalkylene oxide is polyethylene oxide having
 an average molecular weight of about 4,000 kDaltons; and

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½ rpm.

said monoatomic cation is Ca²⁺ in a concentration of from about 0.2 gm/100 ml to about 0.5 mg/100 ml.

- 102. (New) The gel of claim 96, wherein said polyacid is carboxymethylcellulose having an average molecular weight of about 700,000 Daltons; and a degree of substitution of between about 0.81 and about 0.83; said polyalkylene oxide is polyethylene oxide having an average molecular weight of about 4,000 kDaltons; and said monoatomic cation is Ca²⁺ in a concentration of from about 0.2 gm/100 ml to about 0.5 mg/100 ml.
- 103. (New) The gel of claim 101, wherein the total solids content of said gel is about 4 gm/100 ml.

(New) The gel of claim 102, wherein the total solids content of said gel is about 4 mg/100 ml.

- 105. (New) The gel of claim of 1, wherein sufficient cations are present to provide said gel with a viscosity of about 200,000 centipoise to about 300,000 centipoise as measured at a rotation rate of
 - 106. (New) The gel of claim 102, wherein sufficient calcium is present to provide said gel with a viscosity of about 200,000 centipoise to about 300,000 centipoise as measured at a rotation rate of ½ rpm.
 - 107. (New) An ionically cross-linked gel comprising:
 a polyacid (PA);
 a polyalkylene oxide (PO); and
 a monoatomic multivalent cation selected from the group consisting of Ca⁺², Mg²⁺, Mn²⁺, Co²⁺,
 Al³⁺ and Fe³⁺.

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